



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,875	02/27/2002	Carl Mizuyabu	1376.0200080	4740

34456 7590 12/28/2005
TOLER & LARSON & ABEL L.L.P.
5000 PLAZA ON THE LAKE STE 265
AUSTIN, TX 78746

EXAMINER

PATEL, NITIN C

ART UNIT PAPER NUMBER

2116

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/083,875	Applicant(s) MIZUYABU ET AL.	
	Examiner Nitin C. Patel	Art Unit 2116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) 2-7, 14, 15, 19-27, 29, 30, 33, 39, 40, 44, 47, 49 and 50 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 8-10, 16-18, 28, 31, 32, 34-38, 41-43, 45, 46, and 51-53 is/are allowed.
- 6) ☒ Claim(s) 11-13 and 48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is in responsive to amendment filed on 8 November 2005.
2. Claims 2 – 7, 14 – 15, 19 – 27, 29 – 30, 33, 39 – 40, 44, 47, 49, and 50 have been cancelled.
3. Claims 1, 8 – 10, 16 – 18, 28, 31 – 32, 34 – 38, 41 – 43, 45 – 46, and 51 – 53 are allowed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claims 11 – 13, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki et al. [hereinafter as Kawasaki], US Patent 6,332,196 B1, and further in view of Nishihara, US Patent 6,456,702 B2.
 5. As to claim 11, and 48, Kawasaki discloses an apparatus and method including identifying an operating characteristic [first or second state] of an instruction buffer

Art Unit: 2116

state (buffer memory is empty) is detected by buffer monitor of buffer control means, col. 6, lines 20 – 34, col. 9, lines 9 – 21, and 47 – 56] comprising at least one of a buffer fullness [buffer memory is full/filled] or a rate of change of a number of pending instructions stored in the instruction buffer; and adjusting a system characteristic based on the operating characteristic, wherein a power consumption of a system is modified based on the system characteristic [col. 1, lines 6 – 10, col. 3, lines 15 – 21, col. 4, lines 1 – 22, col. 9, lines 9 – 21, 47 – 56, col. 11, lines 32 – 60, col. 12, lines 24 – 67, col. 13, lines 28 – 40, col. 14, lines 51 – 67, col. 15, lines 35 – 67, col. 16, lines 1 – 27, col. 17, lines 56 – 67, col. 18, lines 1 – 41].

However, Kawasaki's adjusting system characteristic does not teach explicitly of modifying the clock speed.

Nishihara discloses an apparatus and method for adjusting the clock signal depending on the buffer status signal including a buffer monitor for monitoring an amount of data stored in buffer memory to produce a buffer status signal, and clock adjuster to change a frequency [speed] of the clock signal [col. 1, lines 56 – 60, col. 2, lines 62 – 66, col. 4, lines 44- 67, col. 5, lines 1 – 61, col. 7, lines 19 – 23].

It would have been obvious to one of ordinary skill in art, having the teachings of Kawasaki and Nishihara before him at the time of invention was made, to modify power consumption of system based on the system characteristic as disclosed by Kawasaki to include adjusting a clock speed depending on the buffer status signal as taught by Nishihara, in order to obtain an apparatus and method for a stable and reliable voice

Art Unit: 2116

communications without generating noise due to slips of voice data [col. 1, lines 40 – 43, col. 2, lines 25 – 34].

6. As to claim 12, Nishihara discloses clock controller [21, fig. 1] with clock generation [17] including generating plurality of different frequencies [normal, lower, higher] therefore he teaches to modify amount of power needed for the clock speed [col. 2, lines 27 – 34, col. 6, lines 8 – 11, 27 – 30].

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki et al. [hereinafter as Kawasaki], US Patent 6,332,196 B1, and further in view of Nishihara, US Patent 6,456,702 B2 as applied to claims 11, above, and further in view of Bucher, US Patent 6, 678,737 B1.

8. As to claim 13, Kawasaki discloses an apparatus and method including identifying an operating characteristic [first or second state] of an instruction buffer [buffer memory], the operating characteristic [first (buffer memory is filled) or second state (buffer memory is empty) is detected by buffer monitor of buffer control means, col. 6, lines 20 – 34, col. 9, lines 9 – 21, and 47 – 56] comprising at least one of a buffer fullness [buffer memory is full/filled] or a rate of change of a number of pending instructions stored in the instruction buffer; and adjusting a system characteristic based on the operating characteristic, wherein a power consumption of a system is modified based on the system characteristic [col. 1, lines 6 – 10, col. 3, lines 15 – 21, col. 4, lines 1 – 22, col. 9, lines 9 – 21, 47 – 56, col. 11, lines 32 – 60, col. 12, lines 24 – 67, col. 13, lines 28 – 40, col. 14, lines 51 – 67, col. 15, lines 35 – 67, col. 16, lines 1 – 27, col.17, lines 56 – 67, col. 18, lines 1 - 41].

However, Kawasaki's adjusting system characteristic does not teach explicitly of modifying the clock speed.

Nishihara discloses an apparatus and method for adjusting the clock signal depending on the buffer status signal including a buffer monitor for monitoring an amount of data stored in buffer memory to produce a buffer status signal, and clock adjuster to change a frequency [speed] of the clock signal [col. 1, lines 56 – 60, col. 2, lines 62 – 66, col. 4, lines 44- 67, col. 5, lines 1 – 61, col. 7, lines 19 – 23].

However, neither Kawasaki nor Nishihara teaches that the system characteristic includes altering the number of bits used to represent multimedia data.

Bucher teaches home network appliance and method for data management for multimedia data including trans-coding of MPEG multimedia data by reducing number of bits that used to represents the data for particular portions of an image [col. 6, lines 51 – 65].

It would have been obvious to one of ordinary skill in art, having the teachings of Kawasaki, Nishihara and Bucher before him at the time of invention was made, to modify apparatus and method of method of identifying an operating characteristic [buffer state] including buffer fullness and modifying system power consumption based on system characteristic including modifying clock speed as disclosed by Kawasaki, Nishihara to include a trans-coding of MPEG multimedia data by reducing number of bits to represent multimedia data as taught by Bucher in order to obtain relatively simple processing of multimedia data with reduced Signal-to-noise ratio and saving valuable memory space [col. 6, lines 44 - 47, 55 – 65].

9. **Examiner's note:** Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant.

Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

10. **Prior Art not relied upon:** Please refer to the references listed in attached PTO-892, which, are not relied upon for claim rejection since these references are relevant to the claimed invention.

Response to Arguments

11. Applicant's arguments, for claims 11 – 13, and 48 see pages 7 – 9, filed 8 November 2005, with respect to the rejection(s) of claim(s) 11 – 13, and 48 under 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art references.

Reasons For Allowance

12. The following is an examiner's statement of reasons for allowance: Applicant's claimed invention distinguishes over the prior art for following reasons. The independent claims 1, 28, and 38 are allowable over the ad of record and none of the references either alone or in combination, discloses or renders obvious a system and method to

Art Unit: 2116

identify the rate of change of number of pending instructions stored in buffer and adjust the system characteristics based on rate of change of number of pending instructions.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nitin C. Patel whose telephone number is 571-272-3675. The examiner can normally be reached on 6:45 am - 5:15 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H. Browne can be reached on 571-272-3670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2116

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nitin C. Patel
December 19, 2005


LYNNE H. BROWNE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100